SEQUENCE LISTING <110> PE <120> FACTOR VII OR VIIA-LIKE MOLECULES <130> 31-001100US <140> 09/782,587 <141> 2001-02-12 <150> PA 2000 00218 <151> 2000-02-11 <150> 60/184,036 <151> 2000-02-22 <150> 60/241,916 <151> 2000-10-18 <160> 19 <170> PatentIn Ver. 2.1 <210> 1 <211> 406 <212> PRT <213> Homo sapiens

- <220>
- <221> MOD_RES <222> (6)..(7)
- <223> Gamma carboxyglutamic acid or glutamic acid
- <220> <221> MOD RES
- <222> (14)
- <223> Gamma carboxyglutamic acid or glutamic acid
- <220>
- <221> MOD RES
- <222> (16)
- <223> Gamma carboxyglutamic acid or glutamic acid
- <220>
- <221> MOD_RES
- <222> (19)..(20)
- <223> Gamma carboxyglutamic acid or glutamic acid
- <220>
- <221> MOD RES
- <222> (25)..(26)
- <223> Gamma carboxyglutamic acid or glutamic acid

<220>

<221> MOD RES

<222> (29)

<223> Gamma carboxyglutamic acid or glutamic acid

<220>

<221> MOD RES

<222> (35)

<223> Gamma carboxyglutamic acid or glutamic acid

<400> 1

Ala Asn Ala Phe Leu Xaa Xaa Leu Arg Pro Gly Ser Leu Xaa Arg Xaa 1 5 10 15

Cys Lys Xaa Xaa Gln Cys Ser Phe Xaa Xaa Ala Arg Xaa Ile Phe Lys 20 25 30

Asp Ala Xaa Arg Thr Lys Leu Phe Trp Ile Ser Tyr Ser Asp Gly Asp 35 40 45

Gln Cys Ala Ser Ser Pro Cys Gln Asn Gly Gly Ser Cys Lys Asp Gln 50 55 60

Leu Gln Ser Tyr Ile Cys Phe Cys Leu Pro Ala Phe Glu Gly Arg Asn 65 70 75 80

Cys Glu Thr His Lys Asp Asp Gln Leu Ile Cys Val Asn Glu Asn Gly 85 90 95

Gly Cys Glu Gln Tyr Cys Ser Asp His Thr Gly Thr Lys Arg Ser Cys 100 105 110

Arg Cys His Glu Gly Tyr Ser Leu Leu Ala Asp Gly Val Ser Cys Thr 115 120 125

Pro Thr Val Glu Tyr Pro Cys Gly Lys Ile Pro Ile Leu Glu Lys Arg 130 135 140

Asn Ala Ser Lys Pro Gln Gly Arg Ile Val Gly Gly Lys Val Cys Pro 145 150 155 160

Lys Gly Glu Cys Pro Trp Gln Val Leu Leu Leu Val Asn Gly Ala Gln 165 170 175

Leu Cys Gly Gly Thr Leu Ile Asn Thr Ile Trp Val Val Ser Ala Ala 180 185 190

His Cys Phe Asp Lys Ile Lys Asn Trp Arg Asn Leu Ile Ala Val Leu 195 200 205

Gly Glu His Asp Leu Ser Glu His Asp Gly Asp Glu Gln Ser Arg Arg 210 215 220

Val Ala Gln Val Ile Ile Pro Ser Thr Tyr Val Pro Gly Thr Thr Asn 225 230 235 240

His Asp Ile Ala Leu Leu Arg Leu His Gln Pro Val Val Leu Thr Asp 245 250 255

	His	Val	Val	Pro 260	Leu	Cys	Leu	Pro	Glu 265	Arg	Thr	Phe	Ser	Glu 270	Arg	Thr	
	Leu	Ala	Phe 275	Val	Arg	Phe	Ser	Leu 280	Val	Ser	Gly	Trp	Gly 285	Gln	Leu	Leu	
	Asp	Arg 290	Gly	Ala	Thr	Ala	Leu 295	Glu	Leu	Met	Val	Leu 300	Asn	Val	Pro	Arg	
	Leu 305	Met	Thr	Gln	Asp	Cys 310	Leu	Gln	Gln	Ser	Arg 315	Lys	Val	Gly	Asp	Ser 320	
	Pro	Asn	Ile	Thr	Glu 325	Tyr	Met	Phe	Cys	Ala 330	Gly	Tyr	Ser	Asp	Gly 335	Ser	
	Lys	Asp	Ser	Cys 340	Lys	Gly	Asp	Ser	Gly 345	Gly	Pro	His	Ala	Thr 350	His	Tyr	
	Arg	Gly	Thr 355	Trp	Tyr	Leu	Thr	Gly 360	Ile	Val	Ser	Trp	Gly 365	Gln	Gly	Cys	
	Ala	Thr 370	Val	Gly	His	Phe	Gly 375	Val	Tyr	Thr	Arg	Val 380	Ser	Gln	Tyr	Ile	
	Glu 385	Trp	Leu	Gln	Lys	Leu 390	Met	Arg	Ser	Glu	Pro 395	Arg	Pro	Gly	Val	Leu 400	
	Leu	Arg	Ala	Pro	Phe 405	Pro											
<210> 2 <211> 1338 <212> DNA <213> Homo sapiens																	
)> L> CI 2> (1		. (13	332)												
	<400 atgg		gee a	aggco	cctco	eg co	etcct	gtgo	c ctg	gctco	tgg	ggct	gcag	ggg (etged	etgget	60
	gccg	gtett	cg t	caco	ccagg	ga gg	gaago	ccat	gg(egted	tgc	atcg	geegg	geg (ccgg	gcc Ala 1	117
							ctc Leu										165
							ttt Phe										213
	gct	gag	cgg	acc	aaa	ctg	ttt	tgg	att	agc	tat	agc	gat	ggc	gat	cag	261

Ala	Glu 35	Arg	Thr	Lys	Leu	Phe 40	Trp	Ile	Ser	Tyr	Ser 45	Asp	Gly	Asp	Gln		
											tgc Cys					309	
											gag Glu					357	
_			_	_	_	_	_		_	_	aac Asn					405	
											aag Lys					453	
											gtg Val 125					501	
											cta Leu					549	
											aag Lys					597	
											aac Asn					645	
_										_	gtg Val		_	_		693	
											atc Ile 205					741	
											cag Gln					789	
											ggc Gly					837	
											gtg Val					885	
											agc Ser					933	

		200					203					270				
												cag Gln				981
												gtc Val				1029
_		_	_	-	_	_	-		_			Gly 999	_			1077
												gat Asp				1125
												acg Thr 350				1173
												cag Gln				1221
												cag Gln				1269
	_	_	_		_		_	_				ggg ggg			_	1317
	_		ttc Phe 405		tgat	aa										1338
<212	.> 40 ?> PF	TS	sapie	ens												
<400 Ala 1		Ala	Phe	Leu 5	Glu	Glu	Leu	Arg	Pro 10	Gly	Ser	Leu	Glu	Arg 15	Glu	
Cys	Lys	Glu	Glu 20	Gln	Cys	Ser	Phe	Glu 25	Glu	Ala	Arg	Glu	Ile 30	Phe	Lys	
Asp	Ala	Glu 35	Arg	Thr	Lys	Leu	Phe 40	Trp	Ile	Ser	Tyr	Ser 45	Asp	Gly	Asp	
Gln	Cys 50	Ala	Ser	Ser	Pro	Cys 55	Gln	Asn	Gly	Gly	Ser 60	Cys	Lys	Asp	Gln	

Leu Gln Ser Tyr Ile Cys Phe Cys Leu Pro Ala Phe Glu Gly Arg Asn Cys Glu Thr His Lys Asp Asp Gln Leu Ile Cys Val Asn Glu Asn Gly 90 Gly Cys Glu Gln Tyr Cys Ser Asp His Thr Gly Thr Lys Arg Ser Cys Arg Cys His Glu Gly Tyr Ser Leu Leu Ala Asp Gly Val Ser Cys Thr Pro Thr Val Glu Tyr Pro Cys Gly Lys Ile Pro Ile Leu Glu Lys Arg Asn Ala Ser Lys Pro Gln Gly Arg Ile Val Gly Gly Lys Val Cys Pro 150 Lys Gly Glu Cys Pro Trp Gln Val Leu Leu Leu Val Asn Gly Ala Gln 165 170 Leu Cys Gly Gly Thr Leu Ile Asn Thr Ile Trp Val Val Ser Ala Ala 180 His Cys Phe Asp Lys Ile Lys Asn Trp Arg Asn Leu Ile Ala Val Leu Gly Glu His Asp Leu Ser Glu His Asp Gly Asp Glu Gln Ser Arg Arg 215 Val Ala Gln Val Ile Ile Pro Ser Thr Tyr Val Pro Gly Thr Thr Asn 225 230 His Asp Ile Ala Leu Leu Arg Leu His Gln Pro Val Val Leu Thr Asp His Val Val Pro Leu Cys Leu Pro Glu Arg Thr Phe Ser Glu Arg Thr 260 265 Leu Ala Phe Val Arg Phe Ser Leu Val Ser Gly Trp Gly Gln Leu Leu 280 Asp Arg Gly Ala Thr Ala Leu Glu Leu Met Val Leu Asn Val Pro Arg 295 Leu Met Thr Gln Asp Cys Leu Gln Gln Ser Arg Lys Val Gly Asp Ser 305 310 Pro Asn Ile Thr Glu Tyr Met Phe Cys Ala Gly Tyr Ser Asp Gly Ser Lys Asp Ser Cys Lys Gly Asp Ser Gly Gly Pro His Ala Thr His Tyr

345

Arg Gly Thr Trp Tyr Leu Thr Gly Ile Val Ser Trp Gly Gln Gly Cys

```
Glu Trp Leu Gln Lys Leu Met Arq Ser Glu Pro Arq Pro Gly Val Leu
                    390
                                        395
Leu Arg Ala Pro Phe Pro
                405
<210> 4
<211> 1357
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Expression
      cassette for expression of FVII in mammalian cells
<400> 4
qqateceqee accatqqtea qceaqqeet ceqeeteetq tgeetgetee tggggetgea 60
qqqctqcctq qctqccqtct tcqtcaccca qqaqqaaqcc catggcqtcc tgcatcgccg 120
gcgccgggcc aatgcctttc tggaagagct ccgccctggc tccctggaac gcgaatgcaa 180
agaggaacag tqcaqctttq aggaaqcccq qqaqattttc aaaqacqctq agcggaccaa 240
actqttttqq attagctata gcgatggcga tcagtggccc tccagccctt gccagaacgg 300
gggctcctgc aaagaccagc tgcagagcta tatctgcttc tgcctgcctg cctttgaggg 360
gcgcaattgc gaaacccata aggatgacca gctgatttgc gtcaacgaaa acgggggctg 420
cqaqcaqtac tqcaqcqatc acacqqqcac gaagcggagc tgccgctgcc acgaaggcta 480
tagceteetg getgaegggg tgteetgeac geecaeggtg gaataceett gegggaagat 540
tcccattcta gaaaagcgga acgctagcaa accccagggc cggatcgtcg gcgggaaggt 600
ctgccctaag ggggagtgcc cctggcaggt cctgctcctg gtcaacgggg cccagctgtg 660
cggcgggacc ctcatcaata ccatttgggt cgtgtccgcc gctcactgct tcgataagat 720
taagaattgg cggaacctca tcgctgtgct cggcgaacac gatctgtccg agcatgacgg 780
ggacgaacag tecegeeggg tggeteaggt cateatteee tecacetatg tgeetggeae 840
gaccaatcac gatategete tgeteegeet ceaccagece gtegtgetea cegateaegt 900
eqtqcctctg tgcctgcctg ageggacctt tagegaacgc aegetggctt tegteegett 960
tagectegtg teeggetggg geeagetget egacegggge getacegete tegagetgat 1020
ggtgctcaac gtcccccggc tgatgaccca ggactgcctg cagcagtccc gcaaagtggg 1080
ggactccccc aatatcacgg agtatatgtt ttgcgctggc tatagcgatg gctccaagga 1140
tagctqcaaq qqqqactccq qcqqqcccca tgccacqcac tatcqcqqqa cctqqtacct 1200
caccgggatc gtcagctggg gccagggctg cgccacggtg gggcactttg gcgtctacac 1260
qcqcqtcaqc caqtacattq aqtqqctqca qaaqctcatq cqqaqcqaac cccqqcccgg 1320
ggtgctcctg cgggcccctt tcccttgata aaagctt
                                                                  1357
<210> 5
<211> 31
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Primer
      CBProFpr174
<400> 5
                                                                  31
agctggctag ccactgggca ggtaagtatc a
```

Ala Thr Val Gly His Phe Gly Val Tyr Thr Arg Val Ser Gln Tyr Ile

370

<210>	6	
<211>	31	
<212>	DNA	
	Artificial Sequence	
<220>		
	Description of Autificial Communication	David mana
<223>	Description of Artificial Sequence:	Primer
	CBProFpr175	
<400>	6	
tggcg	ggatc cttaagagct gtaattgaac t	31
<210>	7	
<211>		
<212>		
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence:	Primer
	CBProFpr216	
<400>	7	
cttaa	ggatc ccgccaccat ggtcagccag	30
<210>	Q	
<211>		
<212>		
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence:	Primer
	CBProFpr229	
<400>	8	
ggagt	ccccg gttttgttgg actgctgc	28
33-3-	in a second contract of the second contract o	
<210>	٥	
<211>		
<212>		
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence:	Primer
	CBProFpr221	
	-	
<400>	9	
	agctt ttatcaaggg a	21
	-J 30000000JJ W	2.1
<210>	10	
<211>		
<212>		
<213×	Artificial Sequence	

```
<220>
<223> Description of Artificial Sequence: Primer
      CBProFpr228
<400> 10
                                                                   28
gcagcagtcc aacaaaaccg gggactcc
<210> 11
<211> 30
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence: Primer
      CBProFpr226
<400> 11
                                                                  30
cattctagaa aaccggaccg ctagcaaacc
<210> 12
<211> 6
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: synthetic peptide tag
<400> 12
His His His His His
<210> 13
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: synthetic peptide tag
<400> 13
Met Lys His His His His His
<210> 14
<211> 10
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: synthetic peptide tag
<400> 14
```

```
Met Lys His His Ala His His Gln His His
                  5
<210> 15
<211> 14
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: synthetic peptide tag
Met Lys His Gln His Gln His Gln His Gln His Gln His Gln
<210> 16
<211> 15
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: synthetic peptide tag
Met Lys His Gln His Gln His Gln His Gln His Gln His Gln Gln
 1
                                     10
                  5
<210> 17
<211> 10
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: synthetic peptide tag
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 1
                  5
<210> 18
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: synthetic peptide tag
<400> 18
Asp Tyr Lys Asp Asp Asp Lys
```

<210> 19